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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(s):	Muller		
SERIAL NO.:	09/574,277	ART UNIT:	2833
FILING DATE:	5/19/00	EXAMINER:	J.R. Harvey
TITLE:	ELECTRICAL PLUG CONNECTOR PARTICULARLY FOR AUTOMOTIVE APPLICATIONS		
ATTORNEY DOCKET NO.:	502-009444-US(PAR) C2359-CS		

Commissioner of Patents
Washington, D.C. 20231

REPLY BRIEF

Sir:

This is in response to the Examiner's Answer mailed 10/1/02 (Paper No. 21) in regard to the appeal in the above-identified patent application.

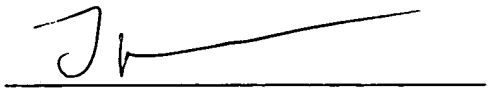
The Appellant acknowledges that the rejection to claims 4-5, Group 2 in the Appeal, has been withdrawn and that the aforementioned claims stand objected.

In regards to Group 1, claim 1, recites in part that bayonet ring (2) can be pushed on the plug housing (23) in the direction of plug insertion until at least one locking device of the bayonet ring (2) interlocks with the plug housing (23). This is not so with the Shuey connector 10, and the Examiner's argument on pages 5-6 of the Answer is incorrect. Outer section 20 of plug 12 in Shuey has exterior threads 24 on its outer surface.

The coupling ring 82 of receptacle 14 has mating inner threads 84 (shown in Fig. 2). The Examiner agrees with this on page 5 of the Answer. It is a fundamental fact that in order to operate as threads, and allow threadable engagement between coupling parts, the respective external and internal threads must be helically wound about the respective coupling parts. The thread start of both the external and internal threads must be at the front edge/lip of the threaded portion of the respective coupling parts. This is due to the mechanics of thread formation of both external and internal thread forms. A thread form, whether external or internal simply cannot start at some longitudinal intermediate point offset some distance from the front edge/lip of the corresponding threaded portion. In Shuey, this means that external threads 24 (although not visible in Fig. 2) start at the front edge of outer section 20, and there is no unthreaded "longitudinal distance" upon which coupling ring 82 may be pushed on in the direction of insertion. Conversely, the internal threads 84 on the coupling ring 82 start at the front lip of ring 82, and again there is no unthreaded "longitudinal distance" inside the ring 82 to allow plug 12 to be pushed into the ring in the direction of insertion. The threads 24, 84 of the plug 12 and ring 82 in Shuey start at the respective front edge of plug section 20 and front lip of ring 82, and thus engage immediately upon placing the front lip of ring 82 on the front edge of plug section 20 thereby preventing the ring from being able to be pushed on the plug section in the direction of insertion. Ring 82 in Shuey simply cannot be pushed on the plug housing in the direction of insertion until at least one locking device of the ring interlocks with the plug housing as is called for in claim 1. Therefore, claim 1 is patentable and should be allowed.

For all of the foregoing reasons, the Board is requested to reverse the rejection of Claim 1.

Respectfully submitted,



12/2/02

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